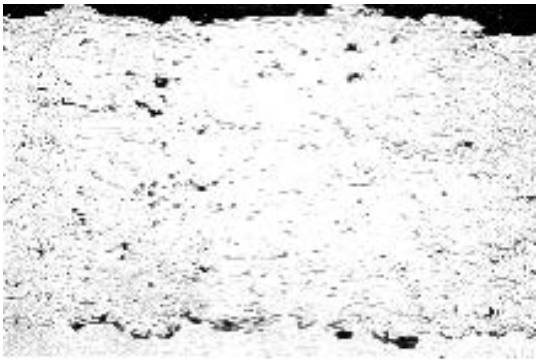
SULZER

H64 high temperature wear resistant coatings

Element	Weight %
Cobalt	Balance
Molybdenum	28
Chromium	17
Silicon	3

Typical chemistry for H64



250X cross-sectional photomicrograph of a typical HICoat H64 coating. Coating thickness typically measures 4-6 mils, but can be applied in excess of 25 mils.

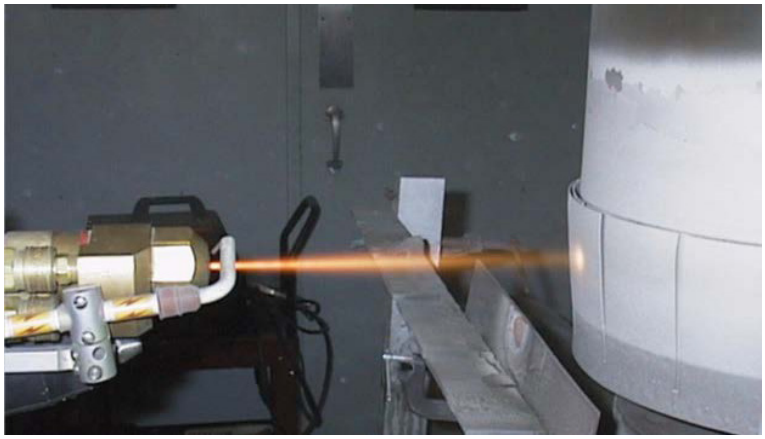
STSH H64 is a cobalt, molybdenum, and chromium powder designed to address adhesive wear up 1,400°F. H64 is similar to Tribaloy 400. Tribaloy intermetallic materials exhibit hard laves phase crystalline structures dispersed in a softer cobalt matrix. The cobalt matrix increases oxidation and hot corrosion resistance. H64 is particularly suited for sliding wear resistance, when contaminants like sulfur make hot corrosion a concern. It also exhibits a low coefficient of friction compared to other hard facing materials. H64 can be used against other hard facing materials, such as chrome carbide, to reduce wear and friction with differential hardness.

Westinghouse Technical Improvement Bulletin (issue #78- 26) recommends a coating of Tribaloy 400 (T400) on both the transition ducts and combustor basket spring clips.

Our H64 coating meets the Westinghouse 83262A2 specification. H64 is applied using a High Velocity Oxy-Fuel gun which produces low oxide coatings with a high bond strength and smooth surface profile.

Specifics of HICoat H64 are as follows: coating hardness is greater than 50 Rc, and porosity content is controlled at less than 2 volume percent; oxide content on the coating is less than 5 volume percent; coating roughness measures less than 350 micro inches Ra (.100 cutoff); ground finishes of less than 10 micro inches Ra (.010 cutoff) can be achieved; and the bond strength is greater than 10,000 psi (ASTM C633).

HICoat couples an 8-axis robotic manipulator along with closed loop automated HVOF spray equipment to coat all components. Robotics and automation remove human error associated with hand spraying.



Westinghouse W191 combustor basket being coated at the STSH facility.

Since STSH is an ISO 9001 certified coating facility, the quality and reproducibility of H64 are constantly monitored through a vigorous quality assurance process.

H64 coating is a proven method of providing high temperature wear resistance on combustion baskets and transition ducts. STSH is the world's most complete and comprehensive turbo machinery repair facility due to products such as H64.

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How can we help you?
Contact us today to find your best solution.

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